10/567950 IAP5 Rec'd PCT/PTO 10 FEB 2006

SEQUENCE LISTING

<110>	EXELIXIS	, INC.										
<120>	PRKCS AS	MODIF	IERS OF A	HE B	ETA C	ATENI	N PATI	YAWH	AND	METHODS	OF	USE
<130>	EX04-056	C-PC										
	US 60/49 2003-08-	•	•			•						
<160>	12											
<170>	PatentIn	versi	on 3.2									
<210><211><211><212><213>	1 2261 DNA Homo sap	iens										
+	1 tcc ggct	gctccg	gcgaggc	jac co	cttgg	gtcg	gcgct	gcggg	cga	ggtgggc		60
aggtag	gtgg gcgg	acggcc	gcggttct	cc g	gcaag	cgca	ggcgg	cggag	tcc	cccacgg		120
cgcccga	aagc gccc	cccgca	ccccgg	ct co	cagcg	ttga	ggcgg	gggag	tga	ggagatg		180
ccgacco	caga ggga	cagcag	cąccatgt	cc ca	acacg	gtcg	caggc	ggcgg	cag	cggggac		240
cattcc	cacc aggt	ccgggt	gaaagcct	ac ta	accgc	gggg	atatca	atgat	aac	acatttt		300
gaacctt	cca tctc	ctttga	gggccttt	gc aa	atgag	gttc	gagaca	atgtg	tto	ttttgac		360
aacgaad	cagc tctt	caccat	gaaatgga	ıta ga	atgag	gaag	gagaco	ccgtg	tac	agtatca		420
tctcagt	tgg agtt	agaaga	agccttta	iga ct	ttat	gagc	taaaca	aagga	ttc	tgaactc		480
ttgatto	catg tgtt	cccttg	tgtaccag	jaa co	gtcct	ggga	tgccti	gtcc	agg	agaagat		540
aaatcca	atct accg	tagagg	tgcacgc	gc to	ggagaa	aagc	tttatt	tgtgc	caa	tggccac		600
actttc	caag ccaa	gcgttt	caacaggo	gt go	ctcact	tgtg	ccatct	gcac	aga	ccgaata		660
tggggad	cttg gacg	ccaagg	atataagt	gc at	caact	tgca	aactct	tggt	tca	taagaag		720
tgccata	aac tcgt	cacaat	tgaatgtg	igg cá	ggcati	tctt	tgccad	cagga	acc	agtgatg		7,80
cccatgo	gatc agtc	atccat	gcattctg	jac ca	atgcad	caga	cagtaa	attcc	ata	taatcct		840
tcaagto	catg agag	tttgga	tcaagtto	igt ga	aagaaa	aaag	aggcaa	atgaa	cac	cagggaa		900
agtggca	aag cttc	atccag	tctaggto	ett ca	aggatt	ttg	atttg	ctccg	ggt	aatagga		960
agaggaa	agtt atgc	caaagt	actgttgg	ıtt c <u>ç</u>	gattaa	aaaa	aaacaq	gatcg	tat	ttatgca	1	020
atgaaag	gttg tgaa	aaaaga	gcttgtta	at ga	atgate	gagg	atatt	gattg	ggt	acagaca	1	080

gagaagcatg	tgtttgagca	ggcatccaat	catcctttcc	ttgttgggct	gcattcttgc	1140
tttcagacag	aaagcagatt	gttctttgtt	atagagtatg	taaatggagg	agacctaatg	1200
tttcatatgc	agcgacaaag	aaaacttcct	gaagaacatg	ccagatttta	ctctgcagaa	1260
atcagtctag	cattaaatta	tcttcatgag	cgagggataa	tttatagaga	tttgaaactg	1320
gacaatgtat	tactggactc	tgaaggccac	attaaactca	ctgactacgg	catgtgtaag	1380
gaaggattac	ggccaggaga	tacaaccagc	actttctgtg	gtactcctaa	ttacattgct	1440
cctgaaattt	taagaggaga	agattatggt	ttcagtgttg	actggtgggc	tcttggagtg	1500
ctcatgtttg	agatgatggc	aggaaggtct	ccatttgata	ttgttgggag	ctccgataac	1560
cctgaccaga	acacagagga	ttatctcttc	caagttattt	tggaaaaaca	aattcgcata	1620
ccacgttctc	tgtctgtaaa	agctgcaagt	gttctgaaga	gttttcttaa	taaggaccct	1680
aaggaacgat	tgggttgtca	tcctcaaaca	ggatttgctg	atattcaggg	acacccgttc	1740
ttccgaaatg	ttgattggga	tatgatggag	caaaaacagg	tggtacctcc	ctttaaacca	1800
aatatttctg	gggaatttgg	tttggacaac	tttgattctc	agtttactaa	tgaacctgtc	1860
cagctcactc	cagatgacga	tgacattgtg	aggaagattg	atcagtctga	atttgaaggt	1920
tttgagtata	tcaatcctct	tttgatgtct	gcagaagaat	gtgtctgatc	ctcatttttc	1980
aaccatgtat	tctactcatg	ttgccattta	atgcatggat	aaacttgctg	caagcctgga	2040
tacaattaac	cattttatat	ttgccaccta	caaaaaaaca	cccaatatct	tctcttgtag	2100
actatatgaa	tcaattatta	catctgtttt	actatgaaaa	aaaaattaat	actactagct	2160
tccagacaat	catgtcaaaa	tttagttgaa	ctggtttttc	agtttttaaa	aggcctacag	2220
atga <u>g</u> taatg	aagttacctt	ttttgtttaa	aaaaaaaaa	g		2261

<211> 2325

<212> DNA

<213> Homo sapiens

agcggttttg	ggcccgggcg	gctgtagagg	cggcggcgcc	tacgggcagt	gggaggagcc	60
gcgcggttcc	ggctgctccg	gcgaggcgac	ccttgggtcg	gcgctgcggg	cgaggtgggc	120
aggtaggtgg	gcggacggcc	gcggttctcc	ggcaagcgca	ggcggcggag	tccccacgg	180
cgcccgaagc	gccccccgc	acccccggcc	tccagcgttg	aggcggggga	gtgaggagat	240
gccgacccag	agggacagca	gcaccatgtc	ccacacggtc	gcaggcggcg	gcagcgggga	300

ccattcccac	caggtccggg	tgaaagccta	ctaccgcggg	gatatcatga	taacacattt	. 360
tgaaccttcc	atctcctttg	agggcctttg	caatgaggtt	cgagacatgt	gttcttttga	420
caacgaacag	ctcttcacca	tgaaatggat	agatgaggaa	ggagacccgt	gtacagtatc	480
atctcagttg	gagttagaag	aagcctttag	actttatgag	ctaaacaagg	attctgaact	540
cttgattcat	gtgttccctt	gtgtaccaga	acgtcctggg	atgccttgtc	caggagaaga	600
taaatccatc	taccgtagag	gtgcacgccg	ctggagaaag	ctttattgtg	ccaatggcca	6.60
cactttccaa	gccaagcgtt	tcaacaggcg	tgctcactgt	gccatctgca	cagaccgaat	720
atggggactt	ggacgccaag	gatataagtg	catcaactgc	aaactcttgg	ttcataagaa	780
gtgccataaa	ctcgtcacaa	ttgaatgtgg	gcggcattct	ttgccacagg	aaccagtgat	840
gcccatggat	cagtcatcca	tgcattctga	ccatgcacag	acagtaattc	catataatcc	900
ttcaagtcat	gagagtttgg	atcaagttgg	tgaagaaaaa	gaggcaatga	acaccaggga	960
aagtggcaaa	gcttcatcca	gtctaggtct	tcaggatttt	gatttgctcc	gggtaatagg	. 1020
aagaggaagt	tatgccaaag	tactgttggt	tcgattaaaa	aaaacagatc	gtatttatgc	1080
aatgaaagtt	gtgaaaaaag	agcttgttaa	tgatgatgag	gatattgatt	gggtacagac	1140
agagaagcat	gtgtttgagc	aggcatccaa	tcatcctttc	cttgttgggc	tgcattcttg	1200
ctttcagaca	gaaagcagat	tgttctttgt	tatagagtat	gtaaatggag	gagacctaat	1260
gtttcatatg	cagcgacaaa	gaaaacttcc	tgaagaacat	gccagatttt	actctgcaga	1320
aatcagtcta	gcattaaatt	atcttcatga	gcgagggata	atttatagag	atttgaaact	1380
ggacaatgta	ttactggact	ctgaaggcca	cattaaactc	actgactacg	gcatgtgtaa	1440
ggaaggatta	cggccaggag	atacaaccag	cactttctgt	ggtactccta	attacattgc	1500
tcctgaaatt	ttaagaggag	aagattatgg	tttcagtgtt	gactggtggg	ctcttggagt	1560
gctcatgttt	gagatgatgg	caggaaggtc	tccatttgat	attgttggga	gctccgataa	1620
ccctgaccag	aacacagagg	attatctctt	ccaagttatt	ttggaaaaac	aaattcgcat	1680
accacgttct	atgtctgtaa	aagctgcaag	tgttctgaag	agttttctta	ataaggaccc	1740
taaggaacga	ttgggttgtc	ttcctcaaac	aggatttgct	gatattcagg	gacacccgtt	1800
cttccgaaat	gttgattggg	atatgatgga	gcaaaaacag	gtggtacctc	cctttaaacc	1860
aaatatttct	ggggaatttg	gtttggacaa	ctttgattct	cagtttacta	atgaacgtgt	1920
ccagctcact	ccagatgacg	atgacattgt	gaggaagatt	gatcagtctg	aatttgaagg	1980

•

.

ttttgagtat	atcaatcctc	ttttgatgtc	tgcagaagaa	tgtgtctgat	cctcattttt	2040
caaccatgta	ttctactcat	gttgccattt	aatgcatgga	taaacttgct	gcaagcctgg	2100
atacaattaa	ccattttata	tttgccacct	acaaaaaac	acccaatatc	ttctcttgta	2160
gactatatga	atcaattatt	acatctgttt	tactatgaaa	aaaaaattaa	tactactagc	2220
ttccagacaa	tcatgtcaaa	atttagttga	actggttttt	cagtttttaa	aaggcctaca	2280
gatgagtaat	gaagttatct	tttttgttta	aaaaaaaaa	aaaaa		2325

<211> 2261

<212> DNA

<213> Homo sapiens

NAUU / 3)						
		ggctgctccg	gcgaggcgac	ccttgggtcg	gcgctgcggg	cgaggtgggc	60
aggtaggt	gg	gcggacggcc	gcggttctcc	ggcaagcgca	ggcggcggag	tcccccacgg	120
cgcccgaa	ıgc	gccccccgca	ccccggcct	ccagcgttga	ggcgggggag	tgaggagatg	180
ccgaccca	ıga	gggacagcag	caccatgtcc	cacacggtcg	caggcggcgg	cagcggggac	240
cattccca	CC	aggtccgggt	gaaagcctac	taccgcgggg	atatcatgat	aacacatttt	300
gaaccttc	cca	tctcctttga	gggcctttgc	aatgaggttc	gagacatgtg	ttcttttgac	360
aacgaaca	ıgc	tcttcaccat	gaaatggata	gatgaggaag	gagacccgtg	tacagtatca	420
tctcagtt	gg	agttagaaga	agcctttaga	ctttatgagc	taaacaagga	ttctgaactc	480
ttgattca	ıtg	tgttcccttg	tgtaccagaa	cgtcctggga	tgccttgtcc	aggagaagat	540
aaatccat	ct	accgtagagg	tgcacgccgc	tggagaaagc	·tttattgtgc	caatggccac	600
actttcca	ag	ccaagcgttt	caacaggcgt	gctcactgtg	ccatctgcac	agaccgaata	660
tggggact	tg	gacgccaagg	atataagtgc	atcaactgca	aactcttggt	tcataagaag	720
tgccataa	ac	tcgtcacaat	tgaatgtggg	cggcattctt	tgccacagga	accagtgatg	780
cccatgga	itc	agtcatccat	gcattctgac	catgcacaga	cagtaattcc	atataatcct	840
tcaagtca	itg	agagtttgga	tcaagttggt	gaagaaaaag	aggcaatgaa	caccagggaa	900
agtggcaa	ag	cttcatccag	tctaggtctt	caggattttg	atttgctccg	ggtaatagga	960
agaggaag	tt	atgccaaagt	actgttggtt	cgattaaaaa	aaacagatcg	tatttatgca	1020
atgaaagt	tg	tgaaaaaaga	gcttgttaat	gatgatgagg	atattgattg	ggtacagaca	1080
gagaagca	tg	tgtttgagca	ggcatccaat	catcctttcc	ttgttgggct	gcattcttgc	1140

tttcagacag	aaagcagatt	gttctttgtt	atagagtatg	taaatggagg	agacctaatg	1200
tttcatatgc	agcgacaaag	aaaacttcct	gaagaacatg	ccagatttta	ctctgcagaa	1.260
atcagtctag	cattaaatta	tcttcatgag	cgagggataa	tttatagaga	tttgaaactg	1320
gacaatgtat	tactggactc	tgaaggccac	attaaactca	ctgactacgg	catgtgtaag	1380
gaaggattac	ggccaggaga	tacaaccagc	actttctgtg	gtactcctaa	ttacattgct	1440
cctgaaattt	taagaggaga	agattatggt	ttcagtgttg	actggtgggc	tcttggagtg	1500
ctcatgtttg	agatgatggc	aggaaggtct	ccatttgata	ttgttgggag	ctccgataac	1560
cctgaccaga	acacagagga	ttatctcttc	caagttattt	tggaaaaaca	aattcgcata	1620
ccacgttctc	tgtctgtaaa	agctgcaagt	gttctgaaga	gttttcttaa	taaggaccct	1680
aaggaaggat	tagattatas	taataaaaa	gaatttgatg		20200000	1740
aayyaacyac	cgggccgcca	ttttttaata	ggatttgetg	acacicaggg	acacccgttc	.,1740
ttccgaaatg	ttgattggga	tatgatggag	caaaaacagg	tggtacctcc	ctttaaacca	1800
aatatttctg	gggaatttgg	tttggacaac	tttgattctc	agtttactaa	tgaacctgtc	1860
cagctcactc	cagatgacga	tgacattgtg	aggaagattg	atcagtctga	atttgaaggt	1920
tttgagtata	tcaatcctct	tttgatgtct	gcagaagaat	gtgtctgatc	ctcatttttc	1980
aaccatgtat	tctactcatg	ttgccattta	atgcatggat	aaacttgctg	caagcctgga	2040
tacaattaac	cattttatat	ttgccaccta	caaaaaaca	cccaatatct	tctcttgtag	2100
actatatgaa	tcaattatta	catctgtttt.	actatgaaaa	aaaaattaat	actactagct	2160
tccagacaat	catgtcaaaa	tttagttgaa	ctggtttttc	agtttttaaa	aggcctacag	2220
atgagtaatg	aagttacctt	ttttgtttaa	aaaaaaaaa	g	•	2261

<210> 4 <211> 2320 <212> DNA

<213> Homo sapiens

<400> 4

ttttgggccc gggcggctgt agaggcggcg gcgcctacgg gcagtgggag gagccgcgcg 60 gttccggctg ctccggcgag gcgacccttg ggtcggcgct gcggggcgagg tgggcaggta 120 ggtgggcgga cggccgcggt tctccggcaa gcgcaggcgg cggagtccc cacggcgcc 180 gaagcgccc cccgcacccc cggcctccag cgttgaggcg gggagtgag gagatgccga 240 cccagaggga cagcagcacc atgtcccaca cggtcgcagg cggcggcagc ggggaccatt 300 cccaccaggt ccgggtgaaa gcctactacc gcggggatat catgataaca cattttgaac 360

cttccatctc	ctttgagggc	ctttgcaatg	aggttcgaga	catgtgttct	tttgacaacg	420	
aacagctctt	caccatgaaa	tggatagatg	aggaaggaga	cccgtgtaca	gtatcatctc	480	
agttggagtt	agaagaagcc	tttagacttt	atgagctaaa	caaggattct	gaactcttga	540	
ttcatgtgtt	cccttgtgta	ccagaacgtc	ctgggatgcc	ttgtccagga	gaagataaat	600	
ccatctaccg	tagaggtgca	cgccgctgga	gaaagcttta	ttgtgccaat	ggccacactt	660	
tccaagccaa	gcgtttcaac	aggcgtgctc	actgtgccat	ctgcacagac	cgaatatggg	720	
gacttggacg	ccaaggatat	aagtgcatca	actgcaaact	cttggttcat	aagaagtgcc	780	
ataaactcgt	cacaattgaa	tgtgggcggc	attctttgcc	acaggaacca	gtgatgccca	840	
tggatcagtc	atccatgcat	tctgaccatg	cacagacagt	aattccatat	aatccttcaa	900	
gtcatgagag	tttggatcaa	gttggtgaag	aaaaagaggc	aatgaacacc	agggaaagtg	960	
gcaaagcttc	atccagtcta	ggtcttcagg	attttgattt	gctccgggta	ataggaagag	1020	
gaagttatgc	caaagtactg	ttggttcgat	taaaaaaaac	agatcgtatt	tatgcaatga	1080	
aagttgtgaa	aaaagagctt	gttaatgatg	atgaggatat	tgattgggta	cagacagaga	1140	
agcatgtgtt	tgagcaggca	tccaatcatc	ctttccttgt	tgggctgcat	tcttgctttc	1200	
agacagaaag	cagattgttc	tttgttatag	agtatgtaaa	tggaggagac	ctaatgtttc	1260	
atatgcagcg	acaaagaaaa	cttcctgaag	aacatgccag	attttactct	gcagaaatca	1320	
gtctagcatt	aaattatctt	catgagcgag	ggataattta	tagagatttg	aaactggaca	1380	
atgtattact	ggactctgaa	ggccacatta	aactcactga	ctacggcatg	tgtaaggaag	1440	
gattacggcc	aggagataca	accagcactt	tctgtggtac	tcctaattac	attgctcctg	1500	
aaattttaag	aggagaagat	tatggtttca	gtgttgactg	gtgggctctt	ggagtgctca	1560	
tgtttgagat	gatggcagga	aggtctccat	ttgatattgt	tgggagctcc	gataaccctg	1620	
accagaacac	agaggattat	ctcttccaag	ttattttgga	aaaacaaatt	cgcataccac	1680	
gttctatgtc	tgtaaaagct	gcaagtgttc	tgaagagttt	tcttaataag	gaccctaagg	1740	
aacgattggg	ttgtcttcct	caaacaggat	ttgctgatat	tcagggacac	ccgttcttcc	1800	
gaaatgttga	ttgggatatg	atggagcaaa	aacaggtggt	acctcccttt	aaaccaaata	1860	
tttctgggga	atttggtttg	gacaactttg	attctcagtt	tactaatgaa	cgtgtccagc	1920	
tcactccaga	tgacgatgac	attgtgagga	agattgatca	gtctgaattt	gaaggttttg	1980	
agtatatcaa	tcctcttttg	atgtctgcag	aagaatgtgt	ctgatcctca	tttttcaacc	2040	

•

·

atgtattcta	ctcatgttgc	catttaatgc	atggataaac	ttgctgcaag	cctggataca	2100
attaaccatt	ttatatttgc	cacctacaaa	aaaacaccca	atatcttctc	ttgtagacta	2160
tatgaatcaa	ttattacatc	tgttttacta	tgaaaaaaaa	attaatacta	ctagcttcca	2220
gacaatcatg	tcaaaattta	gttgaactgg	tttttcagtt	tttaaaaggc	ctacagatga	2280
gtaatgaagt	tatcttttt	gtttaaaaaa	aaaaaaaaa			2320

<211> 2320

<212> DNA

<213> Homo sapiens

ttttgggcc	c gggcggctgt	agaggcggcg	gcgcctacgg	gcagtgggag	gagccgcgcg	60
gttccggct	g ctccggcgag	gcgacccttg	ggtcggcgct	gcgggcgagg	tgggcaggta	120
ggtgggcgg	a cggccgcggt	tctccggcaa	gcgcaggcgg	cggagtcccc	cacggcgccc	180
gaagcgccc	c cccgcacccc	cggcctccag	cgttgaggcg	ggggagtgag	gagatgccga	240
cccagaggg	a cagcagcacc	atgtcccaca	cggtcgcagg	cggcggcagc	ggggaccatt	300
cccaccagg	t ccgggtgaaa	gcctactacc	gcggggatat	catgataaca	cattttgaac	360
cttccatct	c ctttgagggc	ctttgcaatg	aggttcgaga	catgtgttct	tttgacaacg	420
aacagctct	t caccatgaaa	tggatagatg	aggaaggaga	cccgtgtaca	gtatcatctc	480
agttggagt	t agaagaagcc	tttagacttt	atgagctaaa	caaggattct	gaactcttga	540
ttcatgtgt	t cccttgtgta	ccagaacgtc	ctgggatgcc	ttgtccagga	gaagataaat	600
ccatctacc	g tagaggtgca	cgccgctgga	gaaagcttta	ttgtgccaat	ggccacactt	660
tccaagcca	a gcgtttcaac	aggcgtgctc	actgtgccat	ctgcacagac	cgaatatggg	720
gacttggac	g ccaaggatat	aagtgcatca	actgcaaact	cttggttcat	aagaagtgcc	780
ataaactcg	t cacaattgaa	tgtgggcggc	attctttgcc	acaggaacca	gtgatgccca	840
tggatcagt	c atccatgcat	tctgaccatg	cacagacagt	aattccatat	aatccttcaa	900
gtcatgaga	g tttggatcaa	gttggtgaag	aaaaagaggc	aatgaacacc	agggaaagtg	960
gcaaagctt	c atccagtcta	ggtcttcagg	attttgattt	gctccgggta	ataggaagag	1020
gaagttatg	c caaagtactg	ttggttcgat	taaaaaaaac	agatcgtatt	tatgcaatga	1080
aagttgtga	a aaaagagctt	gttaatgatg	atgaggatat	tgattgggta	cagacagaga	1140
agcatgtgt	t tgagcaggca	tccaatcatc	ctttccttgt	tgggctgcat	tcttgctttc	1200

aġacagaaag cagat	tgttc tttgttatag	agtatgtaaa	tggaggagac	ctaatgtttc	1260
atatgcagcg acaaa	gaaaa cttcctgaag	aacatgccag	attttactct	gcagaaatca	1320
gtctagcatt aaatt	atctt catgagcgag	ggataattta	tagagatttg	aaactggaca	1380
atgtattact ggact	ctgaa ggccacatta	aactcactga	ctacggcatg	tgtaaggaag	1440
gattacggcc aggag	ataca accagcactt	tctgtggtac	tcctaattac	attgctcctg	1500
aaattttaag aggag	aagat tatggtttca	gtgttgactg	gtgggctctt	ggagtgctca	1560
tgtttgagat gatgg	cagga aggtctccat	ttgatattgt	tgggagctcc	gataaccctg	1620
accagaacac agagg	attat ctcttccaag	ttattttgga	aaaacaaatt	cgcataccac	1680
gttctatgtc tgtaa	aagct gcaagtgttc	tgaagagttt	tcttaataag	gaccctaagg	1740
aacgattggg ttgtc	ttcct caaacaggat	ttgctgatat	tcagggacac	ccgttcttcc	1800
				·	
gaaatgttga ttggg	atatg atggagcaaa	aacaggtggt	acctcccttt	aaaccaaata	1860
tttctgggga atttg	gtttg gacaactttg	attctcagtt	tactaatgaa	cgtgtccagc	1920
tcactccaga tgacg	atgac attgtgagga	agattgatca	gtctgaattt	gaaggttttg	1980
agtatatcaa tcctc	ttttg atgtctgcag	aagaatgtgt	ctgatcctca	tttttcaacc	2040
atgtattcta ctcat	gttgc catttaatgc	atggataaac	ttgctgcaag	cctggataca	2100
attaaccatt ttata	tttgc cacctacaaa	aaaacaccca	atatcttctc	ttgtagacta	2160
tatgaatcaa ttatt	acatc tgttttacta	tgaaaaaaaa	attaatacta	ctagcttcca	2220
gacaatcatg tcaaa	attta gttgaactgg	tttttcagtt	tttaaaaggc	ctacagatga	2280
gtaatgaagt tatct	ttttt gtttaaaaaa	aaaaaaaaa			2320

<210> 6 <211> 2164 <212> DNA <213> Homo sapiens

atgcccagca	ggaccgaccc	caagatggaa	gggagcggcg	gccgcgtccg	cctcaaggcg	, 60
cattacgggg	gggacatctt	catcaccagc	gtggacgccg	ccacgacctt	cgaggagctc	120
tgtgaggaag	tgagagacat	gtgtcgtctg	caccagcagc	acccgctcac	cctcaagtgg	180
gtggacagcg	aaggtgaccc	ttgcacggtg	tcctcccaga	tggagctgga	agaggctttc	240
cgcctggccc	gtcagtgcag	ggatgaaggc	ctcatcattc	atgttttccc	gagcacccct	300
gagcagcctg	gcctgccatg	tccgggagaa	gacaaatcta	tctaccgccg	gggagccaga	360

agatggagga	agctgtaccg	tgccaacggc	cacctcttcc	aagccaagcg	ctttaacagg	420	
agagcgtact	gcggtcagtg	cagcgagagg	atatggggcc	tcgcgaggca	aggctacagg	480	
tgcatcaact	gcaaactgct	ggtccataag	cgctgccacg	gcctcgtccc	gctgacctgc	540	
aggaagcata	tggattctgt	catgccttcc	caagagcctc	cagtagacga	caagaacgag	600	
gacgccgacc	ttccttccga	ggagacagat	ggaattgctt	acatttcctc	atcccggaag	660	
catgacagca	ttaaagacga	ctcggaggac	cttaagccag	ttatcgatgg	gatggatgga	720	
atcaaaatct	ctcaggggct	tgggctgcag	gactttgacc	taatcagagt	catcgggcgc	780	
gggagctacg	ccaaggttct	cctggtgcgg	ttgaagaaga	atgaccaaat	ttacgccatg	840	
aaagtggtga	agaaagagct	ggtgcatgat	gacgaggata	ttgactgggt	acagacagag	900	
aagcacgtgt	ttgagcaggc	atccagcaac	cccttcctgg	tcggattaca	ctcctgcttc	960	
cagacgacaa	gtcggttgtt	cctggtcatt	gagtacgtca	acggcgggga	cctgatgttc	1020	
cacatgcaga	ggcagaggaa	gctccctgag	gagcacgcca	ggttctacgc	ggccgagatc	1080	
tgcatcgccc	tcaacttcct	gcacgagagg	gggatcatct	acagggacct	gaagctggac	1140	
aacgtcctcc	tggatgcgga	cgggcacatc	aagctcacag	actacggcat	gtgcaaggaa	1200	
ggcctgggcc	ctggtgacac	aacgagcact	ttctgcggaa	ccccgaatta	catcgccccc	1260	
gaaatcctgc	ggggagagga	gtacgggttc	agcgtggact	ggtgggcgct	gggagtcctc	1320	
atgtttgaga	tgatggccgg	gcgctccccg	ttcgacatca	tcaccgacaa	cccggacatg	1380	
aacacagagg	actacctttt	ccaagtgatc	ctggagaagc	ccatccggat	ccccggttc	1440	
ctgtccgtca	aagcctccca	tgttttaaaa	ggatttttaa	ataaggaccc	caaagagagg	1500	
ctcggctgcc	ggccacagac	tggattttct	gacatcaagt	cccacgcgtt	cttccgcagc	1560	-
atagactggg	acttgctgga	gaagaagcag	gcgctccctc	cattccagcc	acagatcaca	1620	•
gacgactacg	gtctggacaa	ctttgacaca	cagttcacca	gcgagcccgt	gcagctgacc	1680	
ccagacgatg	aggatgccat	aaagaggatc	gaccagtcag	agttcgaagg	ctttgagtat	1740	
atcaacccat	tattgctgtc	caccgaggag	tcggtgtgag	gccgcgtgcg	tctctgtcgt	1800	
ggacacgcgt	gattgaccct	ttaactgtat	ccttaaccac	cgcatatgca	tgccaggctg	1860	
ggcacggctc	cgagggcggc	cagggacaga	cgcttgcgcc	gagaccgcag	agggaagcgt	1920	
cagcgggcgc	tgctgggagc	agaacagtcc	ctcacacctg	gcccggcagg	cagcttcgtg	1980	
ctggaggaac	ttgctgctgt	gcctgcgtcg	cggcggatcc	gcggggaccc	tgccgagggg	2040	

•

gctgtcatgc	ggtttccaag	gtgcacattt	tccacggaaa	cagaactcga	tgcactgacc	2100
tgctccgcca	ggaaagtgag	cgtgtagcgt	cctgaggaat	aaaatgttcc	gatgaaaaaa	2160
aaaa						2164

- <210>
- 2315
- DNA
- <211> <212> <213> Homo sapiens

<4UU> /						
	tgagcgctgc	cttccgcgtt	ccgccgcggc	cccacctgga	gccccgccc	60
cgcgccatgg	ccggagctcc	cggggcgcag	cgctgacggc	ggcgggggga	gcgcgccatg	120
cccagcagga	ccggccccaa	gatggaaggg	agcggcggcc	gcgtccgcct	caaggcgcat	180
tacggggggg	acatcttcat	caccagcgtg	gacgccgcca	cgaccttcga	ggagctctgt	240
gaggaagtga	gagacatgtg	tcgtctgcac	cagcagcacc	cgctcaccct	caagtgggtg	300
gacagcgaag	gtgacccttg	cacggtgtcc	tcccagatgg	agctggaaga	ggctttccgc	360
ctggcccgtc	agtgcaggga	tgaaggcctc	atcattcatg	ttttcccgag	cacccctgag	420
cagcctggcc	tgccatgtcc	gggagaagac	aaatctatct	accgccgggg	agccagaaga	480
tggaggaagc	tgtaccgtgc	caacggccac	ctcttccaag	ccaagcgctt	taacaggaga	540
gcgtactgcg	gtcagtgcag	cgagaggata	tggggcctcg	cgaggcaagg	ctacaggtgc	600
atcaactgca	aactgctggt	ccataagcgc	tgccacggcc	tcgtcccgct	gacctgcagg	660
aagcatatgg	attctgtcat	gccttcccaa	gagcctccag	tagacgacaa	gaacgaggac	720
gccgaccttc	cttccgagga	gacagatgga	attgcttaca	tttcctcatc	ccggaagcat	780
gacagcatta	aagacgactc	ggaggacctt	aagccagtta	tcgatgggat	ggatggaatc	. 840
aaaatctctc	aggggcttgg	gctgcaggac	tttgacctaa	tcagagtcat	cgggcgcggg	900
agctacgcca	aggttctcct	ggtgcggttg	aagaagaatg	accaaattta	cgccatgaaa	960
gtggtgaaga	aagagctggt	gcatgatgac	gaggatattg	actgggtaca	gacagagaag	1020
cacgtgtttg	agcaggcatc	cagcaacccc	ttcctggtcg	gattacactc	ctgcttccag	1080
acgacaagtc	ggttgttcct	ggtcattgag	tacgtcaacg	gcggggacct	gatgttccac	1140
atgcagaggc	agaggaagct	ccctgaggag	cacgccaggt	tctacgcggc	cgagatctgc	1200
atcgccctca	acttcctgca	cgagaggggg	atcatctaca	gggacctgaa	gctggacaac	1260
gtcctcctgg	atgcggacgg	gcacatcaag	ctcacagact	acggcatgtg	caaggaaggc	1320

ctgggccctg	gtgacacaac	gagcactttc	tgcggaaccc	cgaattacat	cgcccccgaa	1380
atcctgcggg	gagaggagta	cgggttcagc	gtggactggt	gggcgctggg	agtcctcatg	1440
tttgagatga	tggccgggcg	ctccccgttc	gacatcatca	ccgacaaccc	ggacatgaac	1500
acagaggact	accttttcca	agtgatcctg	gagaagccca	tccggatccc	ccggttcctg	1560
tccgtcaaag	cctcccatgt	tttaaaagga	tttttaaata	aggaccccaa	agagaggctc	1620
ggctgccggc	cacagactgg	attttctgac	atcaagtccc	acgcgttctt	ccgcagcata	1680
gactgggact	tgctggagaa	gaagcaggcg	ctccctccat	tccagccaca	gatcacagac	1740
gactacggtc	tggacaactt	tgacacacag	ttcaccagcg	agcccġtgca	gctgacccca	1800
gacgatgagg	atgccataaa	gaggatcgac	cagtcagagt	tcgaaggctt	tgagtatatc	1860
aacccattat	tgctgtccac	cgaggagtcg	gtgtgaggcc	gcgtgcgtct	ctgtcgtgga	1920
cacgcgtgat	tgacccttta	actgtatcct	taaccaccgc	atatgcatgc	caggctgggc	1980
acggctccga	gggcggccag	ggacagacgc	ttgcgccgag	accgcagagg	gaagcgtcag	2040
cgggcgctgc	tgggagcaga	acagtccctc	acacctgggc	ccgggcaggc	cagcttcgtg	2100
ctggaggaac	ttgctgctgt	gcctgcgtcg	cggcggatcc	gcggggaccc	tgccgagggg	2160
gctgtcatgc	ggtttccaag	gtgcacattt	tccacggaaa	cagaactcga	tgcactgacc	2220
tgctccgcca	ggaaagtgag	cgtgtagcgt	cctgaggaat	aaaatgttcc	gatgatgtgg	2280
aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaa			2315
	atcctgcggg tttgagatga acagaggact tccgtcaaag ggctgcggc gactgggact gactacggtc gacgatgagg aacccattat cacgcgtgat acggctccga cgggcgctgc ctggaggaac ctggaggaac gctgtcatgc tgctccgca	atcctgcggg gagaggagta tttgagatga tggccgggcg acagaggact accttttcca tccgtcaaag cctcccatgt ggctgccggc cacagactgg gactgggact tgctggagaa gactacggtc tggacaactt gacgatgagg atgccataaa aacccattat tgctgtccac cacgcgtgat tgacccttta acggctccga gggcggccag cgggcgctgc tgggagcaga ctggaggaac ttgctgctgt gctgtcatgc ggtttccaag tgctccacg	atcctgcggg gagaggagta cgggttcagc tttgagatga tggccgggcg ctccccgttc acagaggact accttttcca agtgatcctg tecgtcaaag cctcccatgt tttaaaagga ggctgccggc cacagactgg atttctgac gactgggact tgctggagaa gaagcaggcg gactacggtc tggacaactt tgacacacag gacgatgag atgccataaa gaggatcgac acccattat tgctgtccac cgaggagtcg cacggtgat tgaccctta actgtatcct acggctccga gggcgccag ggacagacgc cgggcgctgc tgggagcaga acagtccctc ctggaggaac ttgctgctgt gcctgcgtcg gctgtcatgc ggtttccaag gtgcacattt tgctcccca ggaaagtgag cgtgtagcgt	atcetgcggg gagaggagta egggtteage gtggaetggt tttgagatga tggeegggeg eteceegtte gaeateatea acagaggaet acettteea agtgateetg gagaageeea teegteaaag eeteceatgt tttaaaaagga tttttaaata ggetgeegge eacagaetgg atttetgae ateaagteee gaetggaet tgetggagaa gaageaggeg eteceeteat gaetaeggte tggaeaaett tgaeaacaag tteaecageg gaegatgagg atgeeataaa gaggategae eagteagge aaceeattat tgetgteeae egaggagteg gtgtgaggee eacgegtgat tgaeeettta actgtateet taaecaeege acggeteega gggegeeag gaeagaege ttgeegag egggegetge tgggageaga acagteeete acaeetggge etggaggaae ttgetgetgt geetgegteg eggeggatee getgteatge ggttteeaag gtgeacattt teeaeggaaa	atcctgcggg gagaggagta cgggttcagc gtggactggt gggcgctggg tttgagatga tggccgggcg ctccccgttc gacatcatca ccgacaaccc acagaggact acctttcca agtgatcctg gagaagccca tccggatccc tccgtcaaag cctcccatgt tttaaaaagga tttttaaata aggaccccaa ggctgccggc cacagactgg atttctgac atcaagtccc acgggttctt gactgggact tgctggagaa gaagcaggcg ctccctccat tccagccaca gactacggtc tggacaactt tgacacacag ttcaccagcg agcccgtgca gacgatgagg atgccataaa gaggatcgac cagtcagagt tcgaaggct aacccattat tgctgtccac cgaggagtcg gtgtgaggcc gcgtgcgtct cacgcgtgat tgaccctta actgtatcct taaccaccg atatgcatgc acgggcctgc tggagacag acagtcccc acacctggc tggagacag acagtccctc acacctggc tggagacag acagtccctc acacctggc tggagacag acagtccctc acacctggc cggggaccc ttgcgaggacc ttgcgaggacc ttgctgctgt gcctgcgtcg cggcggatcc gcgggagccc ttgctcatgc ggtttccaag gtgcacattt tccacggaaa cagaactcga tgctcccca ggaaagtgag cgtgtagcgt cctgaggaat aaaatgttcc	atcetgggcetg gagacacaac gagcacttec tgeggaacce egaattacat egeceeegaa atcetgeggg gagaggaga egggtteage gtggactggt gggegetggg agteeteatg tttgagatga tggeegggg eteceeegte gacatcatea eegacaacce ggacatgaac acagaggact acettteca agtgateetg gagaageeca teeggateee eeggtteetg teeggeegge eacagactga tttttaaata aggaceeaa agagaggete ggetgeegge eacagactgg attttetgac atcaagteee aeggettett eegeagata gaactgggaet tggacacatt tgacacacag eteceeteat teeageeaaa gatcacagae gactaeggee tggacaactt tgacacacag tteaceagee ageeegteea getgaceeaa gacgataate aaceeattat tgeegaaaact tgacacacag eageegggeeggatee eacagactga atgeeataaa gaggategae eageggageeggatee eacaggeggatee eacaggaggatee eacaggggatee eacaggaggatee eacaggagatee eacaggaggatee eacaggaggagatee eacaggaggagatee eacaggaggatee eacaggagagatee eacaggagagatee eacaggagagatee eacaggagatee eacaggagatee eacaggagatee eacaggagatee eacaggagatee eacaggagatee eacaggagatee eacaggatee eacaggagatee eacaggatee ea

<210> 8 <211> 1779 <212> DNA

<213> Homo sapiens

atgcccagca	ggaccgaccc	caagatggaa	gggagcggcg	gccgcgtccg	cctcaaggcg	60
cattacgggg	gggacatctt	catcaccagc	gtggacgccg	ccacgacctt	cgaggagctc	120
tgtgaggaag	tgagagacat	gtgtcgtctg	caccagcagc	acccgctcac	cctcaagtgg	180
gtggacagcg	aaggtgaccc	ttgcacggtg	tcctcccaga	tggagctgga	agaggctttc	240
cgcctggccc	gtcagtgcag	ggatgaaggc	ctcatcattc	atgttttccc	gagcacccct	300
gagcagcctg	gcctgccatg	tccgggagaa	gacaaatcta	tctaccgccg	gggagccaga	360
agatggagga	agctgtaccg	tgccaacggc	cacctcttcc	aagccaagcg	ctttaacagg [.]	420
agagcgtact	gcggtcagtg	cagcgagagg	atatggggcc	tcgcgaggca	aggctacagg	480

tgcatcaact	gcaaactgct	ggtccataag	cgctgccacg	gcctcgtccc	gctgacctgc	540
aggaagcata	tggattctgt	catgccttcc	caagagcctc	cagtagacga	caagaacgag	600
gacgccgacc	ttccttccga	ggagacagat	ggaattgctt	acatttcctc	atcccggaag	660
catgacagca	ttaaagacga	ctcggaggac	cttaagccag	ttatcgatgg	gatggatgga	720
atcaaaatct	ctcaggggct	tgggctgcag	gactttgacc	taatcagagt	catcgggcgc	780
gggacgtacg	ccaaggttct	cctggtgcgg	ttgaagaaga	atgaccaaat	ttacgccatg	840
aaagtggtga	agaaagagct	ggtgcatgat	gacgaggata	ttgactgggt	acagacagag	900
aagcacgtgt	ttgagcaggc	atccagcaac	cccttcctgg	tcggattaca	ctcctgcttc	960
cagacgacaa	gtcggttgtt	cctggtcatt	gagtacgtca	acggcgggga	cctgatgttc	1020
cacatgcaga	ggcagaggaa	gctccctgag	gagcacgcca	ggttctacgc	ggccgagatc	1080
tgcatcgccc	tcaacttcct	gcacgagagg	gggatcatct	acagggacct	gaagctggac	1140
aacgtcctcc	tggatgcgga	cggacacatc	aagctcacag	actacggcat	gtgcaaggaa	1200
ggcctgggcc	ctggtgacac	aacgagcact	ttctgcggaa	ccccgaatta	catcgccccc	1260
gaaatcctgc	ggggagagga	gtacgggttc	agcgtggact	ggtgggcgct	gggagtcctc	1320
atgtttgaga	tgatggccgg	gcgctccccg	ttcgacatca	tcaccgacaa	cccggacatg	1380
aacacagagg	actacctttt	ccaagtgatc	ctggagaagc	ccatccggat	ccccggttc	1440
ctgtccgtca	aagcctccca	tgttttaaaa	ggatttttaa	ataaggaccc	caaagagagg	1500
ctcggctgcc	ggccacagac	tggattttct	gacatcaagt	cccacgcgtt	cttccgcagc	1560
atagactggg	acttgctgga	gaagaagcag	gcgctccctc	cattccagcc	acagatcaca	1620
gacgactacg	gtctggacaa	ctttgacaca	cagttcacca	gcgagcccgt	gcagctgacc	1680
ccagacgatg	aggatgccat	aaagaggatc	gaccagtcag	agttcgaagg	ctttgagtat	1740
atcaacccat	tattgctgtc	caccgaggag	tcggtgtga			1779

<210>

<400>

ctgagcgctg	ccttccgcgt	tccgccgcgg	ccccacctgg	agcccccgcc	ccgcgccatg	60
gccggagctc	ccggggcgca	gcgctgacgg	cggcgggggg	agcgcgccat	gcccagcagg	120
accggcccca	agatggaagg	gagcggcggc	cgcgtccgcc	tcaaggcgca	ttacqqqqqq	180

²³⁰⁶

<211> <212> DNA

<213> Homo sapiens

gacatcttca	tcaccagcgt	ggacgccgcc	acgaccttcg	aggagctctg	tgaggaagtg	240
agagacatgt	gtcgtctgca	ccagcagcac	ccgctcaccc	tcaagtgggt	ggacagcgaa	300
ggtgaccctt	gcacggtgtc	ctcccagatg	gagctggaag	aggettteeg	cctggcccgt	360
cagtgcaggg	atgaaggcct	catcattcat	gttttcccga	gcacccctga	gcagcctggc	420
ctgccatgtc	cgggagaaga	caaatctatc	taccgccggg	gagccagaag	atggaggaag	480
ctgtaccgtg	ccaacggcca	cctcttccaa	gccaagcgct	ttaacaggag	agcgtactgc	540
ggtcagtgca	gcgagaggat	atggggcctc	gcgaggcaag	gctacaggtg	catcaactgc	600
aaactgctgg	tccataagcg	ctgccacggc	ctcgtcccgc	tgacctgcag	gaagcatatg	660
gattctgtca	tgccttccca	agagcctcca	gtagacgaca	agaacgagga	cgccgacctt	720
ccttccgagg	agacagatgg	aattgcttac	atttcctcat	cccggaagca	tgacagcatt	780
aaagacgact	cggaggacct	taagccagtt	atcgatggga	tggatggaat	caaaatctct	840
caggggcttg	ggctgcagga	ctttgaccta	atcagagtca	tcgggcgcgg	gagctacgcc	900
aaggttctcc	tggtgcggtt	gaagaagaat	gaccaaattt	acgccatgaa	agtggtgaag	960
aaagagctgg	tgcatgatga	cgaggatatt	gactgggtac	agacagagaa	gcacgtgttt	1020
gagcaggcat	ccagcaaccc	cttcctggtc	ggattacact	cctgcttcca	gacgacaagt	1080
cggttgttcc	tggtcattga	gtacgtcaac	ggcggggacc	tgatgttcca	catgcagagg	1140
cagaggaagc	tccctgagga	gcacgccagg	ttctacgcgg	ccgagatctg	catcgccctc	1200
aacttcctgc	acgagagggg	gatcatctac	agggacctga	agctggacaa	cgtcctcctg	1260
gatgcggacg	ggcacatcaa	gctcacagac	tacggcatgt	gcaaggaagg	cctgggccct	1320
ggtgacacaa	cgagcacttt	ctgcggaacc	ccgaattaca	tcgcccccga	aatcctgcgg	1380
ggagaggagt	acgggttcag	cgtggactgg	tgggcgctgg	gagtcctcat	gtttgagatg	1440
atggccgggc	gctccccgtt	cgacatcatc	accgacaacc	cggacatgaa	cacagaggac	1500
taccttttcc	aagtgatcct	ggagaagccc	atccggatcc	cccggttcct	gtccgtcaaa	1560
gcctcccatg	ttttaaaagg	atttttaaat	aaggacccca	aagagaggct	cggctgccgg	1620
ccacagactg	gattttctga	catcaagtcc	cacgcgttct	tccgcagcat	agactgggac	1680
ttgctggaga	agaagcaggc	gctccctcca	ttccagccac	agatcacaga	cgactacggt	1740
ctggacaact	ttgacacaca	gttcaccagc	gagcccgtgc	agctgacccc	agacgatgag	1800
gatgccataa	agaggatcga	ccagtcagag	ttcgaaggct	ttgagtatat	caacccatta	1860

ttgctgtcca	ccgaggagtc	ggtgtgaggc	cgcgtgcgtc	tctgtcgtgg	acacgcgtga	1920
ttgacccttt	aactgtatcc	ttaaccaccg	catatgcatg	ccaggctggg	cacggctccg	1980
agggcggcca	gggacagacg	cttgcgccga	gaccgcagag	ggaagcgtca	gcgggcgctg	2040
ctgggagcag	aacagtccct	cacacctggg	cccgggcagg	ccagcttcgt	gctggaggaa	2100
cttgctgctg	tgcctgcgtc	gcggcggatc	cgcggggacc	ctgccgaggg	ggctgtcatg	2160
cggtttccaa	ggtgcacatt	ttccacggaa	acagaactcg	atgcactgac	ctgctccgcc	2220
aggaaagtga	gcgtgtagcg	tcctgaggaa	taaaatgttc	cgatgatgtg	gaaaaaaaa	2280
aaaaaaaaa	aaaaaaaaa	aaaaaa				2306

<211> 2340

<212> DNA

<213> Homo sapiens

gccccgcgcg	ccgccggagt	tccgcggagt	tgaccgggtc	ggcgccgtcg	gtcctgagcg	60
ctgccttccg	cgttccgccg	cggccccacc	tggagccccc	gccccgcgcc	atggccggag	120
ctcccggggc	gcagcgctga	cggcggcggg	gggagcgcgc	catgcccagc	aggaccggcc	180
ccaagatgga	agggagcggc	ggccgcgtcc	gcctcaaggc	gcattacggg	ggggacatct	240
tcatcaccag	cgtggacgcc	gccacgacct	tcgaggagct	ctgtgaggaa	gtgagagaca	300
tgtgtcgtct	gcaccagcag	cacccgctca	ccctcaagtg	ggtggacagc	gaaggtgacc	360
cttgcacggt	gtcctcccag	atggagctgg	aagaggcttt	ccgcctggcc	cgtcagtgca	420
gggatgaagg	cctcatcatt	catgttttcc	cgagcacccc	tgagcagcct	ggcctgccat	480
gtccgggaga	agacaaatct	atctaccgcc	ggggagccag	aagatggagg	aagctgtacc	540
gtgccaacgg	ccacctcttc	caagccaagc	gctttaacag	gagagcgtac	tgcggtcagt	600
gcagcgagag	gatatggggc	ctcgcgaggc	aaggctacag	gtgcatcaac	tgcaaactgc	660
tggtccataa	gcgctgccac	ggcctcgtcc	cgctgacctg	caggaagcat	atggattctg	720
tcatgccttc	ccaagagcct	ccagtagacg	acaagaacga	ggacgccgac	cttccttccg	780
aggagacaga	tggaattgct	tacatttcct	catcccggaa	gcatgacagc	attaaagacg	840
actcggagga	ccttaagcca	gttatcgatg	ggatggatgg	aatcaaaatc	tctcaggggc	900
ttgggctgca	ggactttgac	ctaatcagag	tcatcgggcg	cgggagctac	gccaaggttc	960
tcctggtgcg	gttgaagaag	aatgaccaaa	tttacgccat	gaaagtggtg	aagaaagagc	1020

tggtgcatga tgacgaggat attgactggg tacagacaga gaagcacgtg tttgagcagg 1080 1140 catccagcaa ccccttcctg gtcggattac actcctgctt ccagacgaca agtcggttgt tcctggtcat tgagtacgtc aacggcgggg acctgatgtt ccacatgcag aggcagagga 1200 agctccctga ggagcacgcc aggttctacg cggccgagat ctgcatcgcc ctcaacttcc 1260 tgcacgagag ggggatcatc tacagggacc tgaagctgga caacgtcctc ctggatgcgg 1320 acgggcacat caagctcaca gactacggca tgtgcaagga aggcctgggc cctggtgaca 1380 caacgagcac tttctgcgga accccgaatt acatcgcccc cgaaatcctg cggggagagg 1440 1500 agtacgggtt cagcgtggac tggtgggcgc tgggagtcct catgtttgag atgatggccg 1560 ggcgctcccc gttcgacatc atcaccgaca acccggacat gaacacagag gactaccttt 1620 tccaagtgat cctggagaag cccatccgga tcccccggtt cctgtccgtc aaagcctccc atgttttaaa aggattttta aataaggacc ccaaagagag gctcggctgc cggccacaga 1680 ctggattttc tgacatcaag tcccacgcgt tcttccgcag,catagactgg gacttgctgg 1740 agaagaagca ggcgctccct ccattccagc cacagatcac agacgactac ggtctggaca 1800 actttgacac acagttcacc agcgagcccg tgcagctgac cccagacgat gaggatgcca 1860 taaagaggat cgaccagtca gagttcgaag gctttgagta tatcaaccca ttattgctgt 1920 ccaccgagga gtcggtgtga ggccgcgtgc gtctctgtcg tggacacgcg tgattgaccc 1980 tttaactgta tccttaacca ccgcatatgc atgccaggct gggcacggct ccgagggcgg 2040 ccagggacag acgcttgcgc cgagaccgca gagggaagcg tcagcgggcg ctgctgggag 2100 cagaacagtc cctcacacct gggcccgggc aggccagctt cgtgctggag gaacttgctg 2160 ctgttcctgc gtcgcggcgg atccgcgggg accctgccga gggggctgtc atgcggtttc 2220 caaggtgcac attttccacg gaaacagaac tcgatgcact gacctgctcc gccaggaaag 2280 2340

```
<210> 11
```

Met Ser His Thr Val Ala Gly Gly Gly Ser Gly Asp His Ser His Gln 1 5 15

<211> 587

<212> PRT

<213> Homo sapiens

<400> 11

Val Arg Val Lys Ala Tyr Tyr Arg Gly Asp Ile Met Ile Thr His Phe 20 25 30

Glu Pro Ser Ile Ser Phe Glu Gly Leu Cys Asn Glu Val Arg Asp Met 35 40 45

Cys Ser Phe Asp Asn Glu Gln Leu Phe Thr Met Lys Trp Ile Asp Glu 50 55 60

Glu Gly Asp Pro Cys' Thr Val Ser Ser Gln Leu Glu Leu Glu Glu Ala
65 70 75 80

Phe Arg Leu Tyr Glu Leu Asn Lys Asp Ser Glu Leu Leu Ile His Val 85 90 95

Phe Pro Cys Val Pro Glu Arg Pro Gly Met Pro Cys Pro Gly Glu Asp 100 105 110

Lys Ser Ile Tyr Arg Arg Gly Ala Arg Arg Trp Arg Lys Leu Tyr Cys 115 120 125

Ala Asn Gly His Thr Phe Gln Ala Lys Arg Phe Asn Arg Arg Ala His 130 135 140

Cys Ala Ile Cys Thr Asp Arg Ile Trp Gly Leu Gly Arg Gln Gly Tyr 145 150 155 160

Lys Cys Ile Asn Cys Lys Leu Leu Val His Lys Lys Cys His Lys Leu 165 170 175

Val Thr Ile Glu Cys Gly Arg His Ser Leu Pro Gln Glu Pro Val Met 180 185 190

Pro Met Asp Gln Ser Ser Met His Ser Asp His Ala Gln Thr Val Ile 195 200 205

Pro Tyr Asn Pro Ser Ser His Glu Ser Leu Asp Gln Val Gly Glu Glu 210 215 220

Lys Glu Ala Met Asn Thr Arg Glu Ser Gly Lys Ala Ser Ser Ser Leu 225 230 235 240

Gly Leu Gln Asp Phe Asp Leu Leu Arg Val Ile Gly Arg Gly Ser Tyr

245 250 255

Ala Lys Val Leu Leu Val Arg Leu Lys Lys Thr Asp Arg Ile Tyr Ala 260 265 270

Met Lys Val Val Lys Lys Glu Leu Val Asn Asp Asp Glu Asp Ile Asp 275 280 285

Trp Val Gln Thr Glu Lys His Val Phe Glu Gln Ala Ser Asn His Pro. 290 295 300

Phe Leu Val Gly Leu His Ser Cys Phe Gln Thr Glu Ser Arg Leu Phe 305 310 315 320

Phe Val Ile Glu Tyr Val Asn Gly Gly Asp Leu Met Phe His Met Gln 325 330 335

Arg Gln Arg Lys Leu Pro Glu Glu His Ala Arg Phe Tyr Ser Ala Glu 340 345 350

Ile Ser Leu Ala Leu Asn Tyr Leu His Glu Arg Gly Ile Ile Tyr Arg 355 360 365

Asp Leu Lys Leu Asp Asn Val Leu Leu Asp Ser Glu Gly His Ile Lys 370 380

Leu Thr Asp Tyr Gly Met Cys Lys Glu Gly Leu Arg Pro Gly Asp Thr 385 390 395 400

Thr Ser Thr Phe Cys Gly Thr Pro Asn Tyr Ile Ala Pro Glu Ile Leu 405 410 415

Arg Gly Glu Asp Tyr Gly Phe Ser Val Asp Trp Trp Ala Leu Gly Val 420 425 430

Leu Met Phe Glu Met Met Ala Gly Arg Ser Pro Phe Asp Ile Val Gly 435 440 445

Ser Ser Asp Asn Pro Asp Gln Asn Thr Glu Asp Tyr Leu Phe Gln Val 450 455 460

Ile Leu Glu Lys Gln Ile Arg Ile Pro Arg Ser Leu Ser Val Lys Ala465470475480

Ala Ser Val Leu Lys Ser Phe Leu Asn Lys Asp Pro Lys Glu Arg Leu 485 490 495

Gly Cys His Pro Gln Thr Gly Phe Ala Asp Ile Gln Gly His Pro Phe 500 510

Phe Arg Asn Val Asp Trp Asp Met Met Glu Gln Lys Gln Val Val Pro 515 520 525

Pro Phe Lys Pro Asn Ile Ser Gly Glu Phe Gly Leu Asp Asn Phe Asp 530 540

Ser Gln Phe Thr Asn Glu Pro Val Gln Leu Thr Pro Asp Asp Asp 545 550 560

Ile Val Arg Lys Ile Asp Gln Ser Glu Phe Glu Gly Phe Glu Tyr Ile 565 570 575

Asn Pro Leu Met Ser Ala Glu Glu Cys Val 580 585

<210> 12

<211> 592

<212> PRT

<213> Homo sapiens

<400> 12

Met Pro Ser Arg Thr Asp Pro Lys Met Glu Gly Ser Gly Gly Arg Val 1 5 10 15

Arg Leu Lys Ala His Tyr Gly Gly Asp Ile Phe Ile Thr Ser Val Asp 20 25 30

Ala Ala Thr Thr Phe Glu Glu Leu Cys Glu Glu Val Arg Asp Met Cys 35 40 45

Arg Leu His Gln Gln His Pro Leu Thr Leu Lys Trp Val Asp Ser Glu 50 60

Gly Asp Pro Cys Thr Val Ser Ser Gln Met Glu Leu Glu Glu Ala Phe 70 75 80

Arg Leu Ala Arg Gln Cys Arg Asp Glu Gly Leu Ile Ile His Val Phe 85 90 95

Pro Ser Thr Pro Glu Gln Pro Gly Leu Pro Cys Pro Gly Glu Asp Lys
100 105 110

Ser Ile Tyr Arg Arg Gly Ala Arg Arg Trp Arg Lys Leu Tyr Arg Ala 115 120 125

Asn Gly His Leu Phe Gln Ala Lys Arg Phe Asn Arg Arg Ala Tyr Cys 130 135 140

Gly Gln Cys Ser Glu Arg Ile Trp Gly Leu Ala Arg Gln Gly Tyr Arg 145 150 155 160

Cys Ile Asn Cys Lys Leu Leu Val His Lys Arg Cys His Gly Leu Val 165 170 175

Pro Leu Thr Cys Arg Lys His Met Asp Ser Val Met Pro Ser Gln Glu
180 185 190

Pro Pro Val Asp Asp Lys Asn Glu Asp Ala Asp Leu Pro Ser Glu Glu 195 200 205

Thr Asp Gly Ile Ala Tyr Ile Ser Ser Ser Arg Lys His Asp Ser Ile 210 220

Lys Asp Asp Ser Glu Asp Leu Lys Pro Val Ile Asp Gly Met Asp Gly 225 230 235 240

1 .

Ile Lys Ile Ser Gl'n Gly Leu Gly Leu Gln Asp Phe Asp Leu Ile Arg 245 250 255

Val Ile Gly Arg Gly Ser Tyr Ala Lys Val Leu Leu Val Arg Leu Lys 260 265 270

Lys Asn Asp Gln Ile Tyr Ala Met Lys Val Val Lys Lys Glu Leu Val 275 280 285

His Asp Asp Glu Asp Ile Asp Trp Val Gln Thr Glu Lys His Val Phe 290 295 300

Glu Gln Ala Ser Ser Asn Pro Phe Leu Val Gly Leu His Ser Cys Phe

305

Gln Thr Thr Ser Arg Leu Phe Leu Val Ile Glu Tyr Val Asn Gly Gly 325 330 335

Asp Leu Met Phe His Met Gln Arg Gln Arg Lys Leu Pro Glu Glu His 340 345 350

Ala Arg Phe Tyr Ala Ala Glu Ile Cys Ile Ala Leu Asn Phe Leu His 355 360 365

Glu Arg Gly Ile Ile Tyr Arg Asp Leu Lys Leu Asp Asn Val Leu Leu 370 380

Asp Ala Asp Gly His Ile Lys Leu Thr Asp Tyr Gly Met Cys Lys Glu 385 390 395 400

Gly Leu Gly Pro Gly Asp Thr Thr Ser Thr Phe Cys Gly Thr Pro Asn 405 410 415

Tyr Ile Ala Pro Glu Ile Leu Arg Gly Glu Glu Tyr Gly Phe Ser Val 420 425 430

Asp Trp Trp Ala Leu Gly Val Leu Met Phe Glu Met Met Ala Gly Arg 435 440 445

Ser Pro Phe Asp Ile Ile Thr Asp Asn Pro Asp Met Asn Thr Glu Asp 450 460

Tyr Leu Phe Gln Val Ile Leu Glu Lys Pro Ile Arg Ile Pro Arg Phe 465 470 475 480

Leu Ser Val Lys Ala Ser His Val Leu Lys Gly Phe Leu Asn Lys Asp 485 490 495

Pro Lys Glu Arg Leu Gly Cys Arg Pro Gln Thr Gly Phe Ser Asp Ile 500 505 510

Lys Ser His Ala Phe Phe Arg Ser Ile Asp Trp Asp Leu Leu Glu Lys 515 520 525

Lys Gln Ala Leu Pro Pro Phe Gln Pro Gln Ile Thr Asp Asp Tyr Gly

530 535 540

Leu Asp Asn Phe Asp Thr Gln Phe Thr Ser Glu Pro Val Gln Leu Thr 545 550 560

Pro Asp Asp Glu Asp Ala Ile Lys Arg Ile Asp Gln Ser Glu Phe Glu 565 . 570 . 575

Gly Phe Glu Tyr Ile Asn Pro Leu Leu Leu Ser Thr Glu Glu Ser Val 580 585 590